

**PROMYOSTATIN PEPTIDES AND METHODS OF USING SAME****ABSTRACT OF THE INVENTION**

5           The present invention provides substantially purified peptide portions of a promyostatin polypeptide. For example, the invention provides proteolytic fragments of a promyostatin polypeptide such as a myostatin prodomain or a mature myostatin peptide, as well as functional peptide portions a myostatin prodomain an myostatin.

10       Also provided is a mutant promyostatin polypeptide, which is resistant to proteolytic cleavage, for example, cleavage into a myostatin prodomain and a mature myostatin peptide. The present invention also provides a polynucleotide encoding a peptide portion of a promyostatin polypeptide. In addition, antibodies that specifically bind a peptide portion of a promyostatin polypeptide are provided. The invention further provides methods of identifying a functional peptide portion of a promyostatin

15       polypeptide.